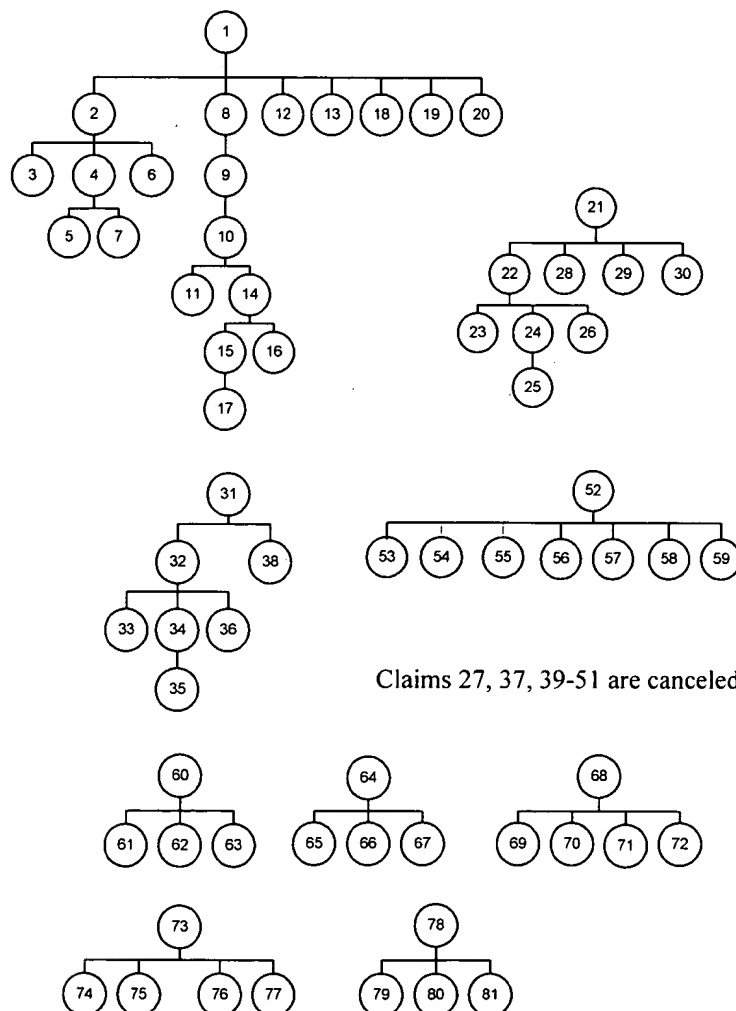


Remarks

The Office action of December 8, 2004 rejects claims 64-67 and 73-81. The rejected claims include independent claims 64, 73 and 78. Each of these claims has been amended herein and is presented for further examination. Applicants appreciate the examiner's suggestions for amendments to the claims in the Office action, but have elected to respond to the rejections in a different way. Each of the rejected independent claims has been amended to specifically recite that the heaped material is a particular material whose characteristics affect the material's angle of repose.

Below is a diagram illustrating the relationship among the pending claims 1-26, 28-38 and 52-81. Claims 27, 37 and 39-51 have been previously canceled.



Turning to the rejected claims, claim 64 is rejected as being unpatentable over a combination of a Caterpillar document identified in the Office action as “Release N149F” and Hagenbuch U.S. patent no. 5,887,914. The Office action primarily relies on page 6 of the Release, which states that Caterpillar has adopted a standard load shape pattern that is slightly different from the SAE standard in view of “actual weight studies.”

Improved Weight Distribution

Since the introduction of the 35-ton (31,8t), 769 Truck, Caterpillar has based 769 weight distribution on a standard, 2:1 sloped, SAE heaped load configuration. While field weight distribution will vary, depending upon loading techniques and material characteristics, continuous analysis of actual weight studies, indicates normal load shapes are actually closer to a 1.7:1 heaped load pattern. Caterpillar has thus adopted the 1.7:1 heaped load shape to calculate published figures for the 769B.

Page 6 of Release N149F. The Caterpillar Release teaches using a standard “heaped load pattern” for designing bodies. In other words, the Release teaches using a “one size fits all” approach.

The secondary reference relied on in the rejection of claim 64 is in keeping with the Release’s “one size fits all” approach. The Office action cites to Fig. 14 of the Hagenbuch ‘914 patent for “limitations” in the claim the Office action admits are not found in the Caterpillar Release (§ 36 of the Office action at page 5). Fig. 14 of the ‘914 patent comprises several flow diagrams describing the design of a truck body. However, the design includes selecting heap profile angles that are in keeping with standard values and not profiles or angles determined from the characteristics of the actual material intended to be hauled by the body under design. The Hagenbuch ‘914 patent selects slopes of the load profile by the category of the material - - e.g., overburden and coal. Applicants have amended claim 64 to reflect applicants’ appreciation that different materials within these categories heap differently and that these differences should be taken into account in designing custom bodies for designated work sites.

Claim 73 describes a body produced by a process in which data is collected that describes angles of repose of heaped material *in three dimensions*. The claim requires collecting angles of repose in three dimensions. The Office action rejects claim 73 and demands it be canceled because it has “substantial difficulties” (§§ 20 and 76 of the Office action). Paragraph 26 of the Office action asserts that element (a) is “not unclear.” But, the basis for the lack of clarity is said to be that it’s “not clear” how the phrase “angles of repose of heaped material in three dimensions” in the claim is different from

the terminology of the other pending claims regarding front and side angles of repose. Applicants object to this rejection as improper in that it implies using different terminology in different independent claims is per se improper. There is no basis for this rejection as stated in the Office action. It should be withdrawn and the claim examined. The Office action does not reject the claim on art, but references the Caterpillar Release in paragraph 26. The Release is not relevant to the invention of claim 73 for the same reasons identified above with reference to claim 64.

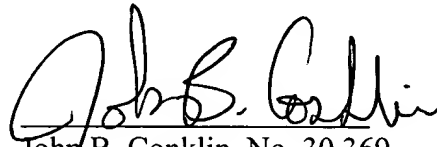
Like claim 73, independent claim 78 describes modeling a shape of a load of material “*in three dimensions.*” Claim 78 also states the shape of the load is “*substantially conical.*” The Office action does not object to the terminology of claim 78 under Section 112, but it does reject the claim as unpatentable over a combination of “Official Notice” and the ‘914 Hagenbuch patent (§§ 51-56 of the Office action at pages 7-8). The Office action relies on “Official Notice” as the *primary* basis for rejecting the claim. Specifically, at paragraph 52 the Office action takes official notice that material “dropped in a large pile” forms a “well known primitive shape of a cone.” Applicants object to this taking of official notice in the context of the rejection and ask that the next Office action rely on a reference if the rejection is repeated. There is nothing in the natural heaping of a material that can serve as the primary teaching of the invention recited in claim 78. Claim 78 calls for modeling a shape of a load of heaped material and modeling a body to hold the material. The fact that material tends to heap in the shape of a cone does not suggest any kind of modeling, let alone the particular modeling of a body for a haulage vehicle required by the claim.

Although applicants believe the rejections of claims 64-67 and 73-81 are not well founded and should be withdrawn, the rejected independent claims 64, 73 and 78 have each been amended to expedite prosecution and move this application to issuance. Each of the rejected independent claims state that the shape of the heaped material is affected by the characteristics of the particular material the body is intended to haul. This is completely unlike the “one size fits all” approach of the prior art relied up to reject the claims and, therefore, the amendment overcomes the prior art rejections of record, placing the claims and the entire application in condition for allowance.

Conclusion

With these amendments, the application is in good and proper form for allowance, and the examiner is respectfully requested to pass this application to issue. If, in the opinion of the examiner, a telephone conference would expedite the prosecution of the subject application, the examiner is invited to call the undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John B. Conklin". The signature is fluid and cursive, with the first name "John" being the most prominent.

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